

BEDES-AUC Status Update



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BEDES TWG Meeting

February 25, 2014

BEDES-AUC Project Overview

- **Objectives**

- Improve consistency of audit data collection and reporting
- Provide a common language for data communication, analysis, and aggregation
- Improve the quality and lower the long-term cost of audits

- **Strategies**

- Leverage existing databases, data forms, and data schemas
- Integrate with the overall BEDES structure
- Consider relationship of audit fields to other use cases
- Obtain input from stakeholders
 - Technical Advisory Group (TAG)
 - Peer reviewers
 - Pilot project partners

Project Timeline

January 10	Kickoff conference call to establish overall objectives, applications, schedule, and key products, and to release the preliminary BEDES-AUC field structure for initial comments
February 3	First internal draft of the BEDES-AUC structure and fields for detailed discussion and review by the TAG
February 25	Presentation of first public draft of the BEDES-AUC structure and fields to the BEDES technical working group
March 7	Draft BEDES-AUC schema in XML format
March 20	Detailed review and troubleshooting of draft BEDES-AUC to identify omissions and errors
April 8	Second draft of BEDES-AUC fields and schema for review by the TAG and other peer reviewers
June 30	Complete field tests with two or more audit teams using the draft BEDES-AUC in XML format
July 31	Finalize BEDES-AUC and begin initial rollout with audit software developers

Overall TAG Mission and Schedule

- **Mission**

- Collaborate with NREL to develop a viable first draft of the BEDES-AUC
- Advise NREL throughout development, piloting, and deployment of the BEDES-AUC

- **Schedule**

Review Period	February 3-7	February 10-14	February 17-21	February 24-28	March 3-7	March 10-14
Conference Call	Feb 7 1-3pm ET	Feb 14 1-3pm ET	Feb 21 1-3pm ET	Feb 28 1-3pm ET	March 7, 1-3pm ET	March 14 1-3pm ET
Topic	Organization of Strawman Data Fields	Project/ Systems Fields	Measure Fields	Audit Reporting Fields	Open Discussion of Unresolved Issues with Fields	Review Draft XML Schema/ Hierarchy

TAG Process

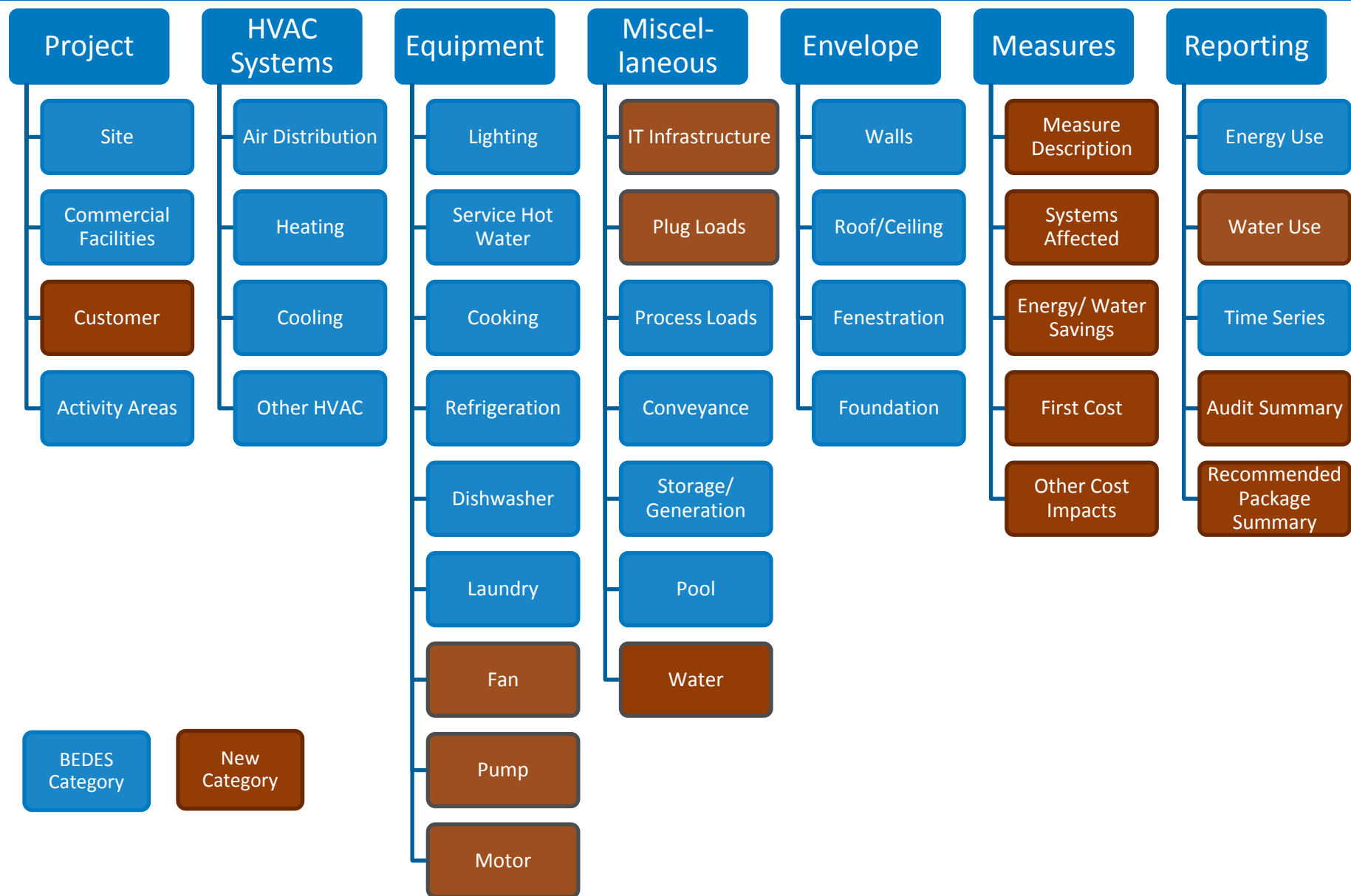
- **Electronic Review**

- Google Spreadsheet allows comments and edits from multiple reviewers in real time
- Replies to comments indicate agreement or disagreement
- If nobody expresses opposition to a comment, NREL makes the appropriate change without further discussion

- **Conference Calls**

- TAG reviews and comments on the relevant sections of the “strawman” during the week leading up to the call
- Issues of significant controversy identified in “Comments” are discussed first, followed by an open forum

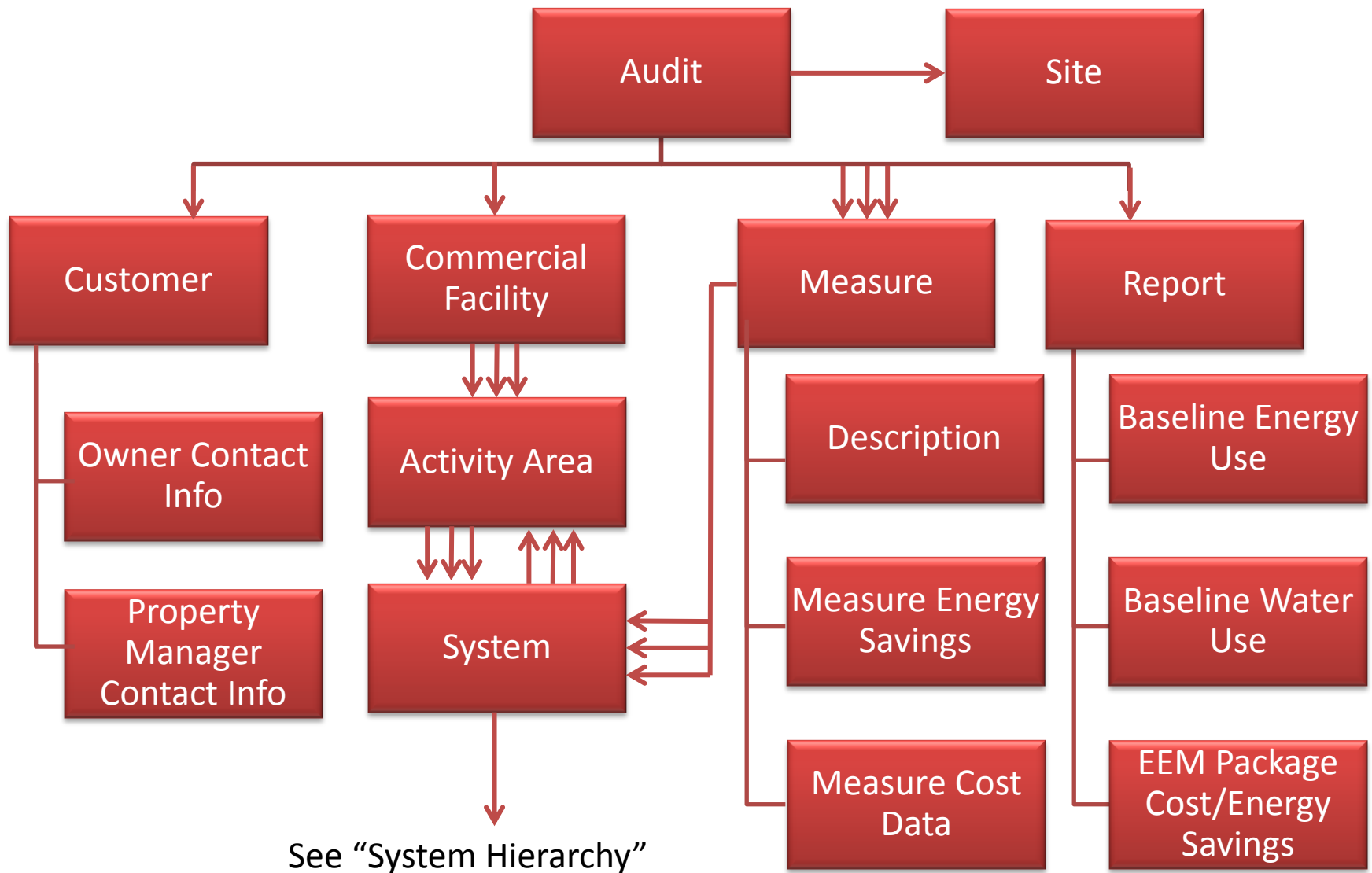
Data Categories/Organization



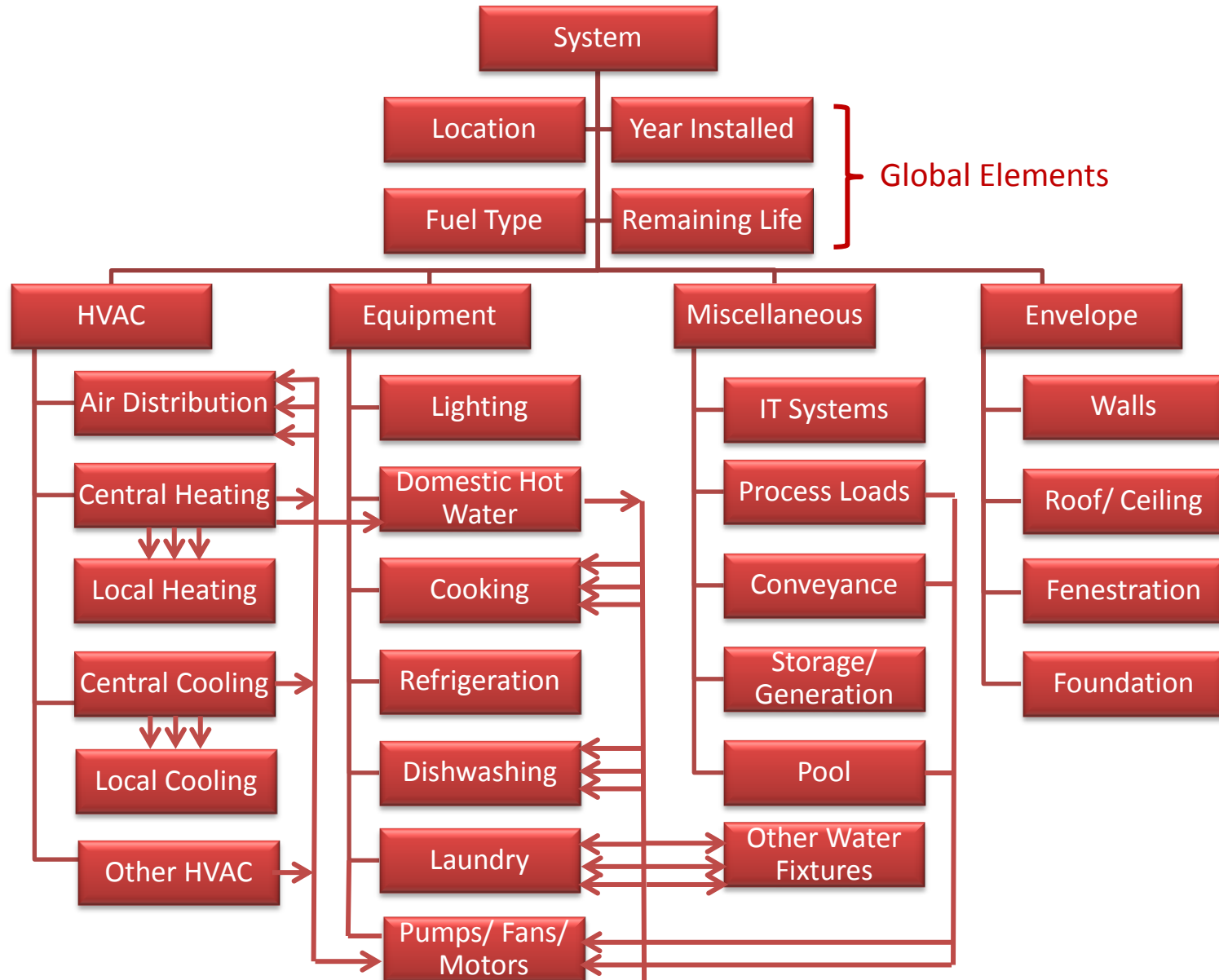
Draft BEDES-AUC Data Fields

- Launch Google Drive
https://docs.google.com/spreadsheets/ccc?key=0AtHYfZ-jQvJ7dGJwSlo0VnBQcTRYaHV6NmVneVU3ekE&usp=drive_web#gid=0

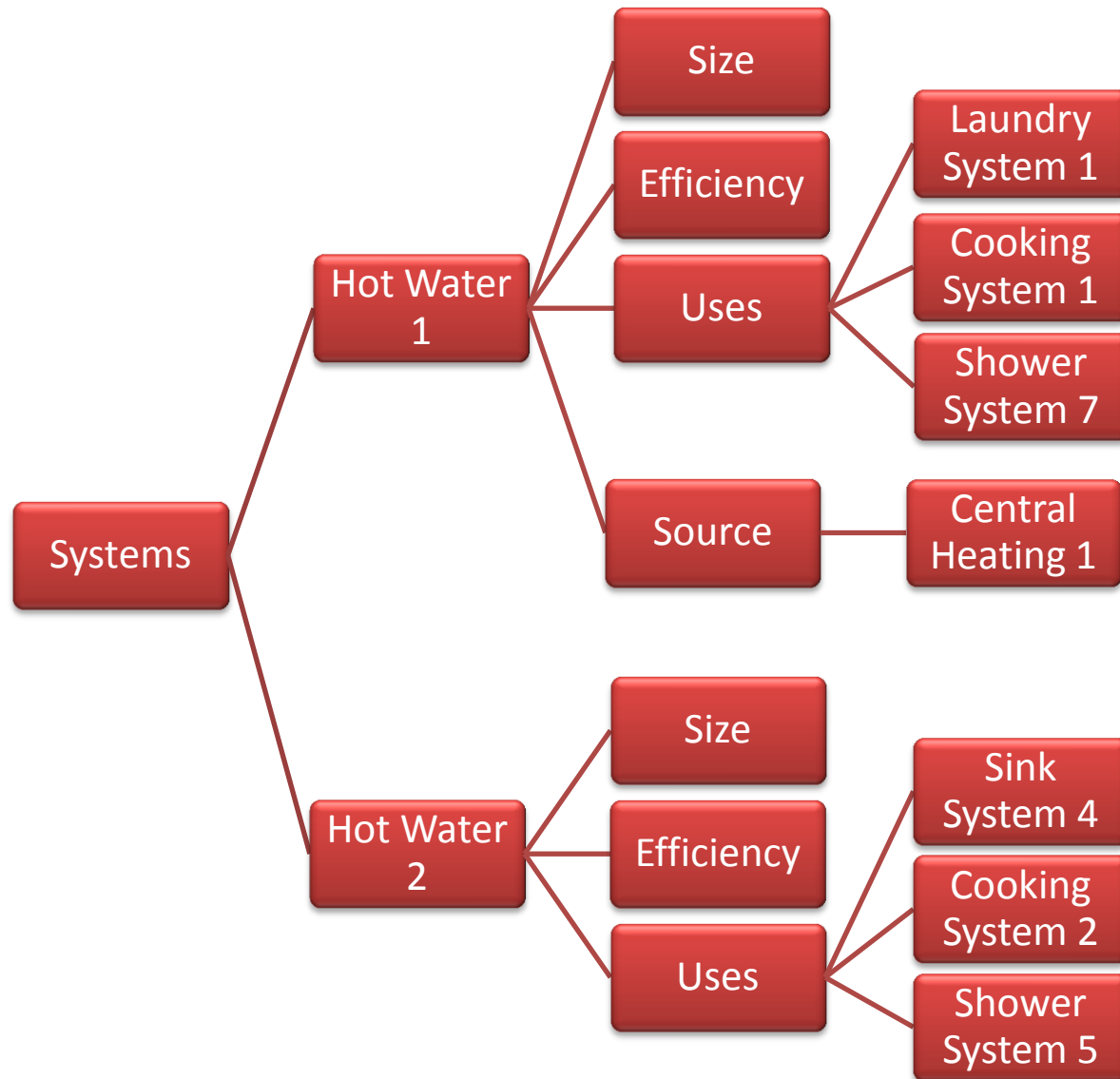
Overall BEDES-AUC Hierarchy (Draft)



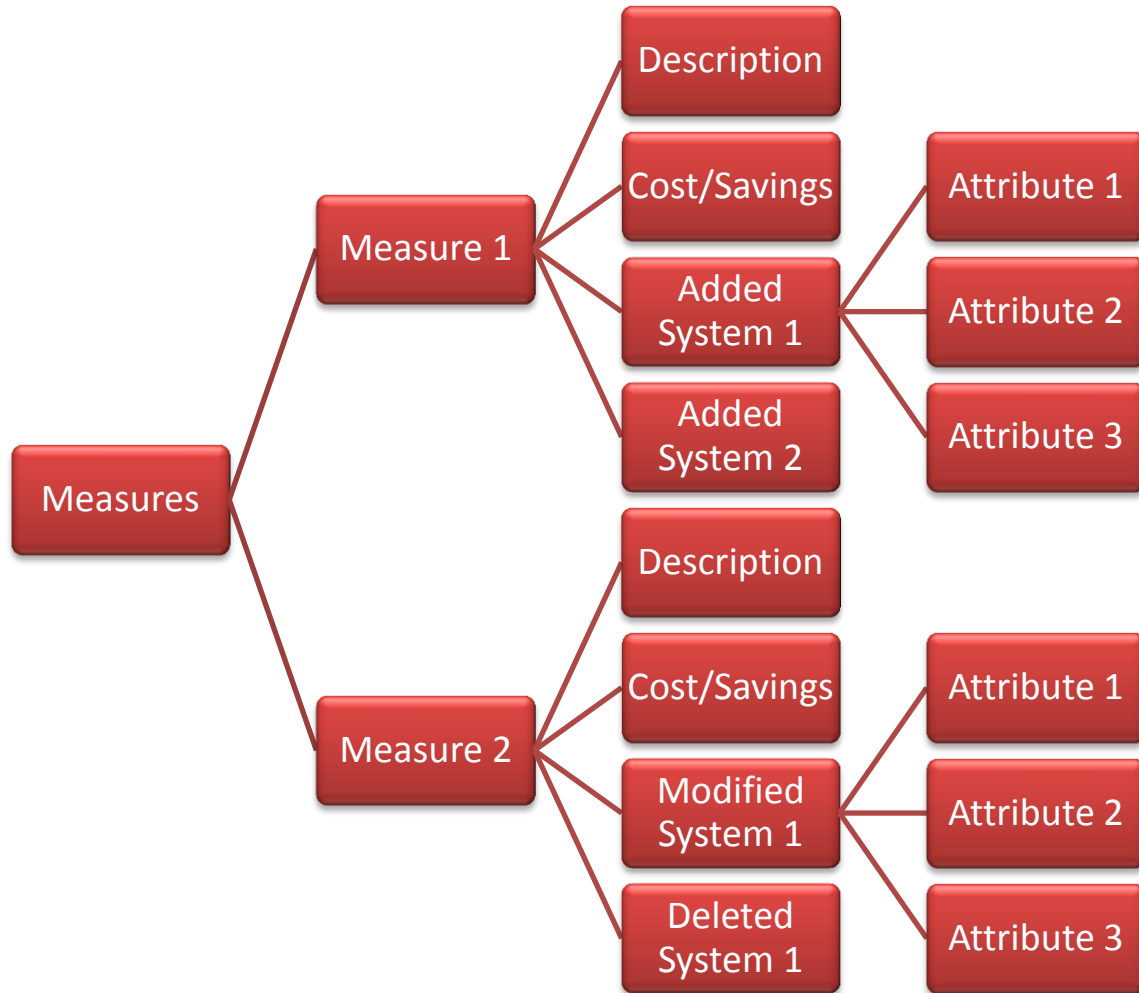
BEDES-AUC Systems Hierarchy (Draft)



BEDES-AUC Hot Water System Hierarchy (Draft)



BEDES-AUC Measures Hierarchy (Draft)



High Level Issues Deferred to BEDES TWG

- What level of “implied” hierarchy should be used for data fields? (e.g. boiler pump efficiency, pump efficiency, or efficiency)
- Should we require specific units, or allow alternative units to minimize errors?
- What metadata fields are necessary for QA? (e.g. measured, default, estimated, nameplate)
- Should calculated fields be included? If so, do we need to include the equations so they are calculated the same way by all users?
- Should we establish constraints on numerical data (maximum/minimum, significant digits, etc.)